



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

DATE:

APR 21 2009

SUBJECT: Removal Site Evaluation for Jewett White Lead Company Site (2000 Richmond Terrace),
Borough of Staten Island, Richmond County, New York.

FROM: Nick Magriples, On-Scene Coordinator *Nick Magriples*
Removal Assessment and Enforcement Section

TO: File

Congressman Michael McMahon (formerly New York City Councilman) submitted a request to the United States Environmental Protection Agency (EPA) on June 3, 2008 for a review of a property located on 2000 Richmond Terrace; the site at one time of the John Jewett & Sons White Lead Company. The Pre-remedial Section, to whom the review was assigned by the Regional Administrator, subsequently requested the assistance of the Removal Action Branch (RAB) to evaluate Jewett White Lead Company (Site) for a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) removal action.

The Site consists of an approximately one-acre parcel of land located at 2000-2012 Richmond Terrace, in the Borough of Staten Island, Richmond County, New York, which historically was part of a larger operation that spanned both sides of Richmond Terrace. The Site was reportedly owned by John Jewett & Sons White Lead Company since 1839 but operations may not have commenced at 2000 Richmond Terrace until later that century, around the time when National Lead Company purchased the business. Operations reportedly continued at the Site until approximately the 1920s. A major fire destroyed the plant's main building house and storage house in 1920. Between 1949 and 1990, various businesses operated at the location including Sedutto's Ice Cream factory. By the late 1990s, there had been several fires at the Site, which eventually led to the clearing of any remaining structures and debris in 2000. Currently, the property is fenced and, until recently, was being used by the property owner to store construction materials and equipment.

The Site is located on the north shore of Staten Island in the Port Richmond area. Richmond Terrace, the main roadway running east-west along the Kill Van Kull, has been active since the early nineteenth century. Many of Staten Island's first industries were established along what is now called Richmond Terrace. The Site is bordered to the north and east by Richmond Terrace, to the south by an abandoned elevated railroad line, and to the west by Park Avenue. The Kill Van Kull is less than 0.25 miles from the Site. The area around the Site is a mix of light industrial, commercial, and residential. Barge transport and shipyard facilities are situated to the north and east of the Site adjacent to the Kill Van Kull. A millwork facility and a dry cleaner are located on Park Avenue across the street from the Site. A residential neighborhood commences just south of the elevated railroad line and one block west on Port Richmond Avenue. The nearest residence is located approximately 100 feet south of the Site. Bus stops are present on both Richmond Terrace and on Park Avenue.

A Phase I Environmental Site Assessment was conducted for the previous owner of the Site in December 2006. Underground storage tanks identified in the northeast corner of the Site were reportedly removed by the current owner. Soil samples collected from three test pits by a consultant to the current owner of the property in October 2008 revealed lead concentrations as high as 14,430 milligrams per kilogram (mg/kg) at a depth of 0 to 15 inches and 42,500 mg/kg at a depth of 15 to 30 inches.

The site was reconnoitered several times by EPA personnel as part of the removal assessment between July and December 2008. During these visits there was evidence that the property was being used as a staging area for material being brought to and removed from a construction job elsewhere in Staten Island. The work had reportedly commenced some time in 2008. During a July visit, dump trucks were delivering dirt, stone, and other materials to the Site. At least half of the Site was covered in piles of these various materials and equipment. The ground surface at the Site, which consisted of mostly unvegetated soil with some stone near the entrance, was disturbed due to the presence of heavy machinery and the vehicular movement. The trucks leaving the Site were observed tracking soil from the Site onto the sidewalk and Park Avenue, where the gate is located. Fabric was subsequently placed along the entire fence line.

During the period of December 17 - 18, 2008, EPA and contractor representatives from the Removal Support Team (RST) collected soil samples from 16 test pits that were excavated to a depth of approximately four feet below grade. The test pit locations were chosen from random locations within a 50-foot grid and were dictated, in some cases, to a limited area based on the material that was stored on the property. A surface sample (0 to 3-inch depth) was collected at each location prior to the test pit excavation. The remaining samples were collected directly from within the test pits at depths of 1-foot, 2-foot, and 3-foot below grade. Many of the test pits were found to contain either blackened soil; concrete in the form of slabs and/or footings; asphalt, bricks, and wood. The analyses for the soil samples collected from the test pits included Target Analyte List (TAL) metals and PCBs.

Off-site samples were collected from four locations along Richmond Terrace in order to determine if contamination had migrated from the Site. One location was on the sidewalk near the bus stop in an area where dirt was accumulating in a defect in the sidewalk from surface runoff leaving the Site. Evidence of the runoff from the Site was observed near this location on December 17th during a heavy rainfall event. The second location was along the curb, adjacent to the first location. A third location was along the curb, upgradient and east of the second location. A fourth location was near a storm sewer at the corner of Richmond Terrace and Park Avenue. The off-site samples were analyzed for TAL metals.

The analytical results from the sampling event in December 2008 revealed the presence of elevated levels of lead throughout most of the Site, both laterally and with depth. The average surface lead concentration was 5,081 mg/kg. The highest lead concentration detected at the surface was 37,100 mg/kg, near the gate on Park Avenue. Thirteen of sixteen surface locations exceeded 400 mg/kg. The average lead concentration in the soil samples collected at depths of 1-foot, 2-foot and 3-foot below grade were 28,245 mg/kg, 61,201 mg/kg, and 53,398 mg/kg, respectively. The highest lead concentration detected in the subsurface was 240,000 mg/kg. Six of the test pit locations contained a lead concentration that exceeded 100,000 mg/kg. The four off-site sample locations were found to contain lead in concentrations ranging from 383 mg/kg to 2,760 mg/kg. The sample collected on the sidewalk at the bus stop was found to contain the highest lead concentration.

The mechanism for past releases to the environment appears to have been the Site's use in the manufacture of white lead and possible waste disposal practices associated with the operations. Although fenced, the Site was recently used in such a manner that increased the potential for the soil contamination to migrate from the Site either through an air migration or surface runoff pathway, or from being physically transported by heavy machinery and vehicles. The surface soil at the Site has been disturbed by recent on-site activities and is thus potentially more available for off-site migration.

Lead is a CERCLA designated hazardous substance as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14). The hazardous substances identified in the soil and offsite constitutes a "release," as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22). The Site is defined as a facility under Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

Conditions at the Site meet the requirements of Section 300.415(b) of the National Contingency Plan (NCP) for the undertaking of a CERCLA removal action. Factors from the NCP Section 300.415(b)(2) that support conducting a removal action at the site are discussed below.

There is a potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain (§300.415(b)(2)(i)). The Site has been recently used as a construction staging area. As a result, the ground surface has been disturbed and elevated levels of lead made potentially more available to migrate from the Site. Persons accessing the Site could potentially be exposed to the elevated levels of lead that are present. The area around the Site is, in part, residential in nature. Persons, including school children, use the adjoining streets, Richmond Terrace and Park Avenue, as a thoroughfare and to wait for public transportation. Elevated levels of lead have been identified in a small area of the sidewalk on Richmond Terrace as a result of storm water runoff from the Site.

At the request of EPA, the New York State Department of Health, under cooperation with the Agency for Toxic Substances and Disease Registry, prepared a Letter of Technical Assistance for the Site on March 25, 2009. It concludes that lead detected in the on-site surface soil and the off-site road dust represents a significant public health concern if people, especially children are being exposed to them.

There are high levels of hazardous substances or pollutants or contaminants in soils, largely at or near the surface, that may migrate (40 CFR §300.415(b)(2)(iv)). Analytical data indicates that elevated levels of lead are present in the soil throughout the Site. The soil has been disturbed by the recent activities at the Site and can potentially become airborne and/or migrate from the Site when disturbed under dry conditions. Lead could potentially migrate offsite under this scenario. There is physical evidence that soil has migrated offsite onto a portion of Richmond Terrace via runoff during rainfall events and onto Park Avenue via vehicular traffic leaving the Site.

Weather conditions exist that may cause hazardous substances to migrate or be released (§300.415(b)(2)(v)). It has been observed during a heavy rainfall event that runoff leaves the Site onto Richmond Terrace, where evidence exists of some soil accumulating on the sidewalk and along the curb. This material is available to become airborne if disturbed and for contact by persons that use Richmond Terrace.